

Remarks

Claims 11-12 and 14-20 are currently pending in this application after cancellation of claim 13 in this Amendment. Claim 11 has been amended. Claims 12 and 14-20 have been withdrawn from further consideration. For reasons stated below, Applicants submit the pending claim 11 is in condition for allowance.

Claim Amendments

Applicants have amended claim 11 to include the limitations previously recited in claim 13 (now canceled), as well as the limitation that the first signal is used to control the restraint means. These amendments do not add any new matter since the amendments are fully supported by the disclosure, e.g., p. 8, lines 18-22 of the substitute specification.

Rejections of Claims 11 and 13

Claim 11 was rejected under 35 U.S.C. §102(b) as being anticipated by Published Patent Application No. 2001/0037683 (“Nozoe”). Claim 11 was also rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,047,226 (“Wu”). Claim 11 was also rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,470,249 (“Schmid”).

In view of the amendment of claim 11 to incorporate the features of now-canceled claim 13 (as well as incorporate other features), Applicants submit that Nozoe, Wu and Schmid do not render unpatentable amended claim 11 since these references clearly fail to teach or suggest the features previously recited in claim 13 (as implicitly acknowledged by the Examiner’s rejection of claim 13 (which depended on claim 11) based on the combination of Nozoe and Watson). Accordingly, the rejections of claim 11 based on Nozoe, Wu and Schmid should be withdrawn.

Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nozoe in view of U.S. Patent No. 7,057,503 (Watson). In view of the amendment of claim 11 to incorporate the features of now-canceled claim 13, Applicants will address this rejection as applied against amended claim 11. Applicants submit that amended claim 11 is patentable over the combination of Nozoe and Watson for at least the following reasons.

In rejecting a claim under 35 U.S.C. §103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091 (Fed. Cir. 1986). Third, the prior art references must teach or suggest all of the claimed limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). To the extent that the Examiner may be relying on the doctrine of inherent disclosure for the obviousness rejection, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Amended claim 11 recites an “impact sensor” which includes “a sensor element for providing a first signal; a filter for receiving the first signal of the sensor element; and an arrangement for carrying out a filter correction . . . wherein the filter correction is realized as a parameterization of a triggering algorithm for restraint means, and wherein the first signal is used to control the restraint means.” In support of the rejection, the Examiner contends that “Watson teaches . . . coupling an ‘angular velocity sensor’ . . . with ‘processor’ . . . to control a safety restraint system of a vehicle,” and that “it would have been obvious to employ Nozoe’s angular velocity sensor for Watson’s ‘roll angular velocity sensor,’ [and] . . . Nozoe’s digital adjusting circuit 63 employs a method of operation (i.e., algorithm) that affects triggering of Watson’s restraint system.” However, Applicants submit that the overall teachings of Nozoe and Watson clearly fail to support the combination asserted by the Examiner, as explained below.

Initially, Applicants note that the Examiner’s statements in support of the obviousness rejection are not clear as to which reference is the primary reference that is being modified by the secondary reference. Since the Examiner states that the obviousness conclusion is “over Nozoe . . . further in view of Watson,” Applicants will assume that Nozoe is the primary reference that is being modified by Watson.

Nozoe teaches a low-pass filter that is adjusted using a control signal, which adjustment is performed using signals directly transmitted to the low-pass filter. Watson teaches a vehicular rollover detection system including a roll angular velocity sensor and a lateral velocity sensor. A processor controls a safety restraint system, including possibly delaying or inhibiting the deployment of the safety restraint system, in response to the measured lateral velocity, either alone or in combination with the longitudinal velocity.

Applicants note that both Nozoe and Watson teach an angular velocity sensor instead of an impact sensor recited in claim 11. Furthermore, to the extent the Examiner is citing Watson for teaching the feature of realizing the filter correction as a parameterization of a triggering algorithm, nothing in Watson actually teaches or suggests this feature, and Applicants further note that the Examiner is implicitly acknowledging that Nozoe does not teach or suggest this feature (Nozoe teaches that the adjustment of the low-pass filter is performed using signals directly transmitted to the low pass filter, which is clearly different from the present claimed feature of “filter correction as a parameterization of a triggering algorithm,” i.e., by influencing the triggering algorithm for the restraint means). In addition, to the extent the Examiner states that “Nozoe’s digital adjusting circuit 63 employs a method of operation (i.e., algorithm) that affects triggering of Watson’s restraint system,” not only is there no factual support for this assertion, but the Examiner is implicitly making an assumption that one of ordinary skill in the art would selectively combine the teachings of Nozoe and Watson in the manner asserted by the Examiner, for which assumption there is no basis; instead, at best, the overall teachings of Nozoe and Watson would suggest adjusting Nozoe’s low pass filter instead of affecting Watson’s restrain system. For example, Paragraph 134 of Nozoe teaches adjustment of the low-pass filter in a pre-processing operation, and the teachings of Watson, if combined with Nozoe, would merely supplement the teachings of Nozoe regarding the low-pass filter adjustment. Accordingly, the overall teachings of Nozoe and Watson clearly do not suggest the claimed features that a post-processing method, i.e., “a parameterization of a triggering algorithm,” is used to correct the filter.

Therefore, Applicants respectfully submit that claim 11 is not rendered obvious by the overall teachings of Nozoe and Watson.

Questions Regarding Withdrawn Claims 14 and 19

In response to the Examiner's question regarding claim 14, i.e., the distinction between the "impact sensor" recited in the preamble and the "sensor element" recited in the body of the claim, the Examiner is directed to page 6, lines 4-5, which clearly describe that the impact sensor of Fig. 1 includes, among other elements, the sensor element 1.

In response to the Examiner's question regarding claim 19, Applicants note that the features of claim 19 refer to a trend over time as indicated by the Examiner (see also Substitute Specification, p. 2, l. 14-23).

Conclusion

In light of the foregoing, Applicants respectfully submit that pending claim 11 under consideration is in condition for allowance. Prompt reconsideration and allowance of the present application are therefore respectfully requested.

Respectfully submitted,

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